

AMENDMENTS TO THE CLAIMS

Please amend the claims as shown below. A complete listing of the claims, including their current status, is set forth below.

1-32. (cancelled)

33. (Currently amended) A screening method for identifying a compound as a ~~of using a G protein-coupled receptor to screen candidate compounds as pharmaceutical~~ agent ~~agents for~~ the treatment of a disease or disorder ameliorated ~~by an elevation of an~~ increasing intracellular level of cAMP in peripheral blood leukocytes, said method comprising ~~the steps of:~~

- (a) contacting ~~one or more said~~ a candidate compound ~~compounds~~ with a host cell or membrane thereof that comprises ~~or with membrane of a host cell that expresses a G protein-coupled receptor (GPCR), wherein said GPCR comprises an amino acid sequence that is at least 80% identical to the amino acid sequence of SEQ ID NO:82~~ said receptor; and
- (b) measuring the ability of the compound ~~or compounds~~ to act as an agonist or partial agonist ~~stimulate functionality of the~~ GPCR receptor;

wherein an ability to act as an agonist or partial agonist of the GPCR indicates that the compound can be employed as a pharmaceutical agent for the treatment of said disease or disorder.

~~wherein the ability of the compound or compounds to stimulate functionality of the receptor is indicative of the compound or compounds being an agonist or partial agonist of the receptor; wherein the G protein-coupled receptor is a receptor comprising an amino acid sequence of SEQ ID NO: 82; and wherein the pharmaceutical agent is an agonist or partial agonist of the receptor.~~

34. (Currently amended) The method of claim 33 wherein the GPCR ~~sequence of SEQ ID NO: 82~~ comprises one or more amino acid substitutions selected from the group consisting of a substitution of an amino acid other than isoleucine for isoleucine at the amino acid

corresponding to position 225 of SEQ ID NO:82, a substitution of lysine for isoleucine at the amino acid corresponding to position 225 of SEQ ID NO:82, a substitution of alanine for proline at the amino acid corresponding to position 43 of SEQ ID NO:82, a substitution of asparagine for lysine at the amino acid corresponding to position 97 of SEQ ID NO:82, and a substitution of phenylalanine for isoleucine at the amino acid corresponding to position 130 of SEQ ID NO:82.

35. (Previously presented) The method of claim 33 wherein said host cell comprises an expression vector, said expression vector comprising a polynucleotide encoding the G protein-coupled receptor.

36-50. (Cancelled)

51. (Currently amended) A method for identifying ~~one or more candidate compounds as~~ a modulator of a non-endogenous, constitutively activated ~~version of a~~ G protein-coupled receptor (GPCR), said method comprising ~~the steps of~~:

- (i) contacting said ~~one or more~~ a candidate compound ~~compounds~~ with a host cell or membrane thereof that comprises ~~or with membrane of a host cell that expresses~~ a non-endogenous, constitutively activated GPCR, wherein said GPCR comprises an amino acid sequence that is at least 80% identical to the amino acid sequence of SEQ ID NO:82 and comprises an amino acid other than isoleucine at the amino acid corresponding to position 225 of SEQ ID NO:82 ~~said receptor~~; and
- (ii) measuring the ability of the compound or compounds to inhibit or stimulate functionality of the receptor. ~~receptor~~;

~~wherein said receptor comprises an amino acid sequence of SEQ ID NO:82 that comprises a substitution of an amino acid other than an isoleucine for the isoleucine at position 225 of said amino acid sequence.~~

52. **(Currently amended)** The method of claim 51 wherein said GPCR amino acid sequence comprises one or more amino acid substitutions selected from the group consisting of a substitution of alanine for proline at the amino acid corresponding to position 43 of SEQ ID NO:82, a substitution of asparagine for lysine at the amino acid corresponding to position 97 of SEQ ID NO:82, and a substitution of phenylalanine for isoleucine at the amino acid corresponding to position 130 of SEQ ID NO:82 ~~of said amino acid sequence~~.

53. **(Currently amended)** The method of claim 51 wherein said amino acid sequence comprises a lysine substitution for isoleucine at the amino acid corresponding to position 225 of SEQ ID NO:82.

54. **(Currently amended)** The method of claim 53 wherein said amino acid sequence comprises one or more amino acid substitutions selected from the group consisting of a substitution of alanine for proline at the amino acid corresponding to position 43 of SEQ ID NO:82, a substitution of asparagine for lysine at the amino acid corresponding to position 97 of SEQ ID NO:82, and a substitution of phenylalanine for isoleucine at the amino acid corresponding to position 130 of SEQ ID NO:82 ~~of said amino acid sequence~~.

55. (Previously presented) The method according to claim 51, 52, 53 or 54 wherein the modulator is selected from the group consisting of agonist, partial agonist, and inverse agonist.

56. (Previously presented) The method according to claim 51, 52, 53 or 54 wherein the modulator is an inverse agonist.

57. **(Currently amended)** The method of claim 51, 52, 53 or 54 wherein said host cell comprises an expression vector, said expression vector comprising a polynucleotide encoding the non-endogenous, constitutively activated ~~version of a~~ G protein-coupled receptor.

58. (Previously presented) The method according to claim 57 wherein the modulator is

selected from the group consisting of agonist, partial agonist, and inverse agonist.

59. (Previously presented) The method according to claim 57 wherein the modulator is an inverse agonist.

60. (New) The method of claim 58 or claim 59, wherein the method further comprises formulating said agonist, partial agonist, or inverse agonist as a pharmaceutical.

61. (New) The method of claim 33, wherein said G protein-coupled receptor is a receptor comprising an amino acid sequence that is at least 95% identical to the amino acid sequence of SEQ ID NO: 82.

62. (New) The method of claim 33, wherein said G protein-coupled receptor is a human G protein-coupled receptor.

63. (New) The method of claim 33, wherein said G protein-coupled receptor is a receptor comprising an amino acid sequence that is identical to the amino acid sequence of SEQ ID NO: 82.

64. (New) The method according to any one of claims 33-35 and 61-63, wherein said method further comprises formulating said compound as a pharmaceutical.

65. (New) The method of claim 33 or claim 51, wherein said host cell is a eukaryotic cell.

66. (New) The method of claim 65, wherein said host cell is a yeast cell.

67. (New) The method of claim 65, wherein said host cell is a mammalian cell.

68. (New) The method of claim 67, wherein said mammalian cell is selected from the group consisting of a COS-7 cell, a 293 cell, and a 293T cell.